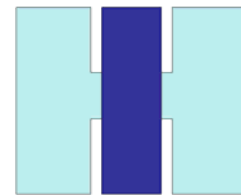


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Industrial Hygiene Group

**Exhaust Ventilation
Program**

1.0 Purpose & Scope

Purpose: The purpose of this procedure is to define specific roles, responsibilities, authorities, and accountabilities of the SHSD IH group and its interaction with other BNL organizations in the development, implementation and coordination of an effective Toxic Exhaust Ventilation program. This document describes program elements necessary for compliance with OSHA and DOE regulations.

Scope: This procedure defines the overall role of the IH Group in delivery of toxic exhaust ventilation services. Details of these function performed by the IH Group are defined in corresponding IH Group procedures in the series IH62nnn. The scope and applicability of this SOP is limited to role of the SHSD IH Group.

2.0 Responsibilities

- 2.1 The BNL Toxic Exhaust Ventilation program is implemented through a matrixed organization of several BNL organization units. The SHSD portion of the program is implemented through the Industrial Hygiene Group Leader or designee who serves as the *SHSD Toxic Exhaust Ventilation Program Administrator*.

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2.2 The SHSD person assigned as the *SHSD Toxic Exhaust Ventilation Program Administrator* also serves as the *BNL Toxic Exhaust Ventilation Administrator* and the *Subject Matter Expert* and holds general responsibility to monitor the effectiveness of the BNL toxic exhaust ventilation program and lead the correction of deficiencies.

3.0 Definitions

Exhaust Ventilation Program Administrator: A person, designated by the Industrial Hygiene Group Leader, to oversee compliance with the DOE Orders and OSHA regulations on the Toxic Exhaust Ventilation Program for SHSD and BNL as a whole.

4.0 Prerequisites

none

5.0 Precautions

none

6.0 Procedure (Program Elements)

The IH Group serves in the following roles:

6.1 Program Administration: The IH Group Leader shall designate an SHSD *Toxic Exhaust Ventilation Program Administrator*. This role will be filled by a professional Industrial Hygienist with the IH Group who has sufficient knowledge of toxic exhaust hazards, BNL operations, and OSHA and DOE drivers on Toxic Exhaust Ventilation. This individual also serves as the Subject Matter Expert for *Toxic Exhaust Ventilation*.

6.2 Regulatory Driver Tracking: The *Toxic Exhaust Ventilation Administrator* shall maintain mechanisms to track the status of DOE, OSHA, ANSI, NIOSH and ACGIH regulations and guidance to assess their impact on the BNL Program and shall initiate corrective action for any gaps in the BNL program resulting from changes in the reference and regulatory documents. Review of checks on the status of regulatory drivers will be formally documented. A documented check of drivers is required on at least an annual basis.

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- 6.3 **Periodic BNL Program Self-Assessment:** The *Toxic Exhaust Ventilation Administrator* shall periodically review the BNL Toxic Exhaust Ventilation Program to assess compliance with regulatory drivers and determine the overall effectiveness of the program. The periodic evaluation shall occur at least each 3 years and shall ensure that all program aspects are conducted to meet the requirements in the OSHA and DOE drivers. Attachment 9.1, or an equivalent, is used to document the assessment. Records of the assessment will be maintained as per the SBMS Records Management Subject Area in the SHSD IH Laboratory record system and the BNL/ESHQ Document Logging system.
- 6.4 **Preparation of Procedures for Hazard Assessment and Exposure Monitoring:** The IH Group develops and revises Standard Operating Procedures and Recordkeeping forms for toxic exhaust ventilation hazard assessments conducted by SHSD including general toxic exhaust ventilation system assessment principles, and specific instrument operation instructions and techniques. These procedures are maintained on the SHSD Internet website for access by those performing tasks covered by the documents. All assessments and monitoring conducted by SHSD will be reported and documented in accordance with the SOP IH60500.
- 6.5 **Conduct advanced (complex) toxic exhaust ventilation surveys:** The IH Group maintains the expertise to conduct advanced complexity toxic exhaust ventilation surveys following the IH62 series Standard Operating Procedures. IH Group evaluations are made to analyze potential employee toxic exhaust exposure from BNL operations and obtain the data necessary for development of effective administrative and engineering controls.
- 6.6 **Investigate Incidents of Toxic Exhaust Exposure cases reported by OMC:** The IH Group conducts formal evaluations of workplace conditions to determine if occupational exposure has a cause from toxic exhaust design or use. A formal report is prepared and provided to OMC, the Workers Compensation Administrator, line management, and the worker.
- 6.7 **Calibration and Maintenance of Exposure Monitoring Equipment:** The IH Group maintains toxic exhaust ventilation measuring equipment for use by qualified surveyors from organizations that perform exposure assessments. Calibration of Portable test equipment used in this program will be calibrated on a basis established in IH51600.

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6.8 **Project Design Review for toxic exhaust ventilation impact on workers:** The IH Group participates in Project Design Reviews as requested by the SHSD Safety Engineering Group. The person performing the review will follow IH60700. The IH group shall review major construction and renovation projects and include an analysis of potential toxic exhaust exposure from the construction and intended use of the project. Recommendations shall be made to correct exposure sources before construction activities are commenced.

7.0 Implementation & Training

7.1 IH Group personnel document their training for the knowledge in the general principles of toxic exhaust ventilation using the *Job Performance Measure Completion Certificate* in the other IH Group toxic exhaust ventilation procedures

8.0 References

8.1 BNL SHSD Procedures: *IH62 series; IH60500 and IH50600.*

8.2 BNL SBMS Subject Area *Exhaust Ventilation and the Exhaust Ventilation Handbook*

8.3 OSHA General Industry: 29CFR: 1910.94 Ventilation; 1910.146 Confined Space; 1910.107 Spray Booths; 1910.1001 Asbestos; 1910.1025 Lead; 1910.1027 Cadmium; 1910.1030 Bloodborne Pathogens. OSHA Construction Industry: 1926.57 Ventilation; 1926.1101 Asbestos; 1926.62 Lead; OSHA Technical Manual: Section III Chapter 3: Ventilation Investigation

8.4 DOE Order 440.1A

9.0 Attachments

9.1 Annual Compliance Audit Checklist form

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10.0 Documentation

Document Development and Revision Control Tracking		
Prepared By: <i>(signature/date on file)</i> J. Peters 04/21/05 Certified Industrial Hygienist	Reviewed By / Date: <i>(signature/date on file)</i> R. Selvey 07/05/05 Certified Industrial Hygienist	Approved By / Date: <i>(signature/date on file)</i> R. Selvey 07/05/05 Industrial Hygienist Group Leader
ESH Coordinator/ Date: <i>none</i>	Work Coordinator/ Date: <i>none</i>	SHSD Manager / Date <i>none</i>
QA Representative / Date: <i>none</i>	Training Coordinator / Date: 	Filing Code: IH52.05
Facility Support Rep. / Date: <i>none</i>	Environ. Compliance Rep. / Date: <i>none</i>	Effective Date: 07/06/05
ISM Review - Hazard Categorization <input type="checkbox"/> High <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> Low/Skill of the craft	Validation: <input type="checkbox"/> Formal Walkthrough <input checked="" type="checkbox"/> Step-by-step Desk Top Review <input type="checkbox"/> SME Review Name / Date:	IMPLEMENTATION: Training Completed: <input type="checkbox"/> Procedure posted on Web: <input checked="" type="checkbox"/> Hard Copy" files updated: <input checked="" type="checkbox"/>

Revision Log		
Purpose: <input type="checkbox"/> Temporary Change <input type="checkbox"/> Change in Scope <input type="checkbox"/> Periodic review <input checked="" type="checkbox"/> Clarify/enhance procedural controls Changed resulting from: <input type="checkbox"/> Environmental impacts <input type="checkbox"/> Federal, State and/or Local requirements <input type="checkbox"/> Corrective/preventive actions to non-conformances <input checked="" type="checkbox"/> none of the above Section/page and Description of change: Revised Section 7 on qualification to reflect the uniform training criteria policy. Removed Attachment 9.2 and replaced in each appropriate IHG Exhaust Ventilation Procedure.		
R. Selvey 12/08/08 <i>(signature on file)</i> SME Reviewer/Date:	Reviewer/Date:	Reviewer/Date:

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Attachment 9.1

BNL Toxic Exhaust Ventilation Self-Assessment Compliance Checklist

YEAR_____

Sample of minimally acceptable
assessment checklist. See IH50510 and
IH50520.

Item	Criteria	
1	Have the <i>ANSI, OSHA, and ACGIH</i> standards or DOE Orders regarding Toxic Exhaust Ventilation been updated during this audit period ?	
1b	If item 1 is yes, have IH SOPs been updated to reflect the changes ?	
2	Are personnel qualification records up-to-date and the documentation properly maintained?	
3	Was test equipment calibrated within the specified times and records appropriately maintained ?	
4	Are records of testing, conducted during the period, appropriately filled out and properly maintained for future access (including the last three years records properly stored) ?	
5	Were results of testing appropriately conveyed to the requester of the test in a timely manner (within 30 days) and to employees within regulatory set time limits?	
6	Observation of a survey: Was the test conducted in accordance with all steps and requirements in IHSOP 62 series? Date of observation: _____ Observed By: _____ Location of test: _____	

	Name	Date
Reviewed Performed By:		
Review Approved By:		

(1) Attach any supporting documentation for the status to this record.

Recordkeeping: This record is to be kept until 75 years from the Review Approval Date.

The only official copy is on-line at the SHSD IH Group website.
Before using a printed copy, verify that it is current by checking the document issue date on the website.

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